Nova Scotia Environment
Annual Accountability Report
for the Fiscal Year 2012-2013

NOVA SCOTIA
Environment

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Appendix A – Annual Report under Section 18 of the *Public Interest Disclosure of Wrongdoing Act*

Accountability Statement

The Accountability Report of Nova Scotia Environment for the year ended March 31, 2013 is prepared pursuant to the *Finance Act* and government policies and guidelines. These authorities require the reporting of outcomes against Nova Scotia Environment's Statement of Mandate for the fiscal year 2012-2013. The reporting of the Department's outcomes necessarily includes estimates, judgments and opinions by Nova Scotia Environment management.

We acknowledge that this Accountability Report is the responsibility of Department management. The report is, to the extent possible, a complete and accurate representation of outcomes relative to the goals and priorities set out in the Nova Scotia Environment's 2012-2013 Statement of Mandate.

Honourable Sterling Belliveau
Minister of Environment

Sara Jane Snook
Deputy Minister of Environment

Message from Minister

I am pleased to provide you with our Accountability Report for the fiscal year 2012-2013, which measures Nova Scotia Environment's success in meeting the goals set out in the Department's 2012-2013 Statement of Mandate.

During the past year, the *Environmental Goals and Sustainable Prosperity Act* was reviewed and changes included the encouragement to buy local food, add more farms to the province, and develop a renewable energy framework and green economy strategy. The overall focus of the review was to advance the growth of the green economy while improving and strengthening the linkages between the environment and the economy.

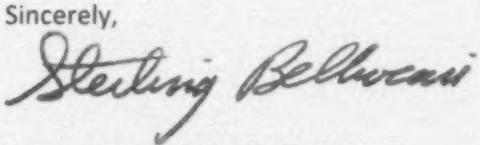
Staff also worked on developing the programs and policies necessary to support new contaminated sites regulations that took effect in July 2013. These regulations will encourage the clean-up and redevelopment of contaminated sites.

In February 2013, the proposed Parks and Protected Areas plan was released for public consultation. Staff held meetings throughout the province to seek public input. The feedback Nova Scotians provided will be considered as the final plan is developed. This plan will not only meet our goal to protect 12 per cent of Nova Scotia's land – it will surpass it.

Nova Scotia Environment was also restructured to better focus our resources on our mandate and better align the work of our staff in four key areas: Compliance, Science, Policy, and Sustainability and Innovation.

I am very proud to be Minister of a department with so many dedicated staff, who are passionate about protecting and improving our environment and natural spaces. We will continue to work with Nova Scotians to meet our mandate and environmental goals.

Sincerely,



Honourable Sterling Belliveau
Minister of Environment

1. Financial Results

Nova Scotia Environment			
Program and Service Area	**2012/13 Estimate ($ thousands)**	**2012/13 Actual ($ thousands)**	**Variance ($ thousands)**
Ordinary Revenues, Fees and Recoveries	$5,355	$5,452	97
TCA Purchase Requirements	$6,730	$6,295	(435)
Administration	$1,147	$731	(416)
Policy and Corporate Services	$4,462	$4,686	224
Environmental Monitoring and Compliance	$12,243	$11,315	(928)
Environmental Science and Program Management	$2,881	$3,059	178
Sustainability & Innovation	$5,652	$4,946	(706)
Total Gross Program Expenses	$26,385	$24,737	(1,648)
Funded Staff (FTEs)	268	233	(35)

Nova Scotia Environment's tangible capital assets were $435,000 less than budget. This variance was due to proposed property transactions that were not completed at year-end.

The Department's total gross program expenses were $1,648,000 less than budget. The majority of this variance was due to savings from unfilled positions.

2. Performance Measures

The status of Nova Scotia Environment's performance measures contained in the 2012-2013 Statement of Mandate, demonstrates the progress we made in achieving our mandate of protecting the environment. These updates are summarized below and on the subsequent pages of this report.

Mandate: *Environment Act* – Clean Air

Outcome Description:

The province's annual air emissions of sulphur dioxide (SO_2) are below their regulated emissions cap.

Measure:

Annual total sulphur dioxide (SO_2) air emissions (tonnes) in the province.

Target:

The target is to maintain total provincial SO_2 emissions below the 2005 cap of 141,750 tonnes, and achieve a 25% reduction in SO_2 emissions from 2001 levels, from facilities emitting > 90 t/yr., by 2010 and to achieve total provincial emissions no greater than 119,070 tonnes by 2015, and no greater than 70,875 tonnes by 2020 (62.5% less than the 1995 provincial cap).

SO_2 is a pollutant that contributes to the formation of smog and acid precipitation, which have negative effects on human health and the environment. The purpose of the target is to reduce smog and acid precipitation.

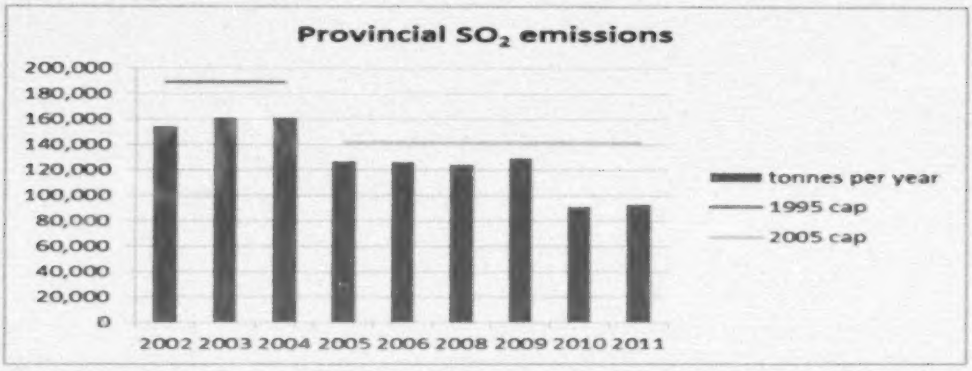
Strategic Actions to Achieve the Target:

- A provincial cap for SO_2 emissions is set in regulation. Emitters annually report emissions to the National Pollutant Release Inventory (NPRI), and the Department tracks these emissions.

2012-2013 Results:

In 2011 (the most recent data), the total provincial air emissions of SO_2 were 92,736 tonnes, which was below the emissions cap of 141,750 tonnes. The total in 2011 for facilities emitting greater than 90 tonnes per year, but excluding NSP (i.e. the facilities required to submit emissions reduction plans to reduce SO_2 emissions by 25%), was

6,028 tonnes, which was 56% below the 2001 base year levels. The 2012 data is expected in the Fall of 2013.



Ultimate Goal:

Provincial SO_2 emissions caps have been established in the Air Quality Regulations for 2015 and 2020. The cap for 2015 is 119,070 tonnes and the cap for 2020 is 70,875 tonnes. Our ultimate and ongoing goal is to reach or surpass these caps.

Mandate: *Environment Act* – Clean Air

Outcome Description:

Nova Scotia Power's (NSP) annual air emissions of sulphur dioxide (SO_2) are below their regulated emissions cap.

Measure:

Annual total SO_2 air emissions (tonnes) by NSP.

Target:

The target is for NSP to achieve a 50% reduction in SO_2 emissions from their 1995 cap of 145,000 tonnes by 2010 (which is 72,500 tonnes), to no greater than 60,900 tonnes by 2015, and to no greater than 36,250 tonnes by 2020 (a full 75% less than their 1995 cap of 145,000 tonnes).

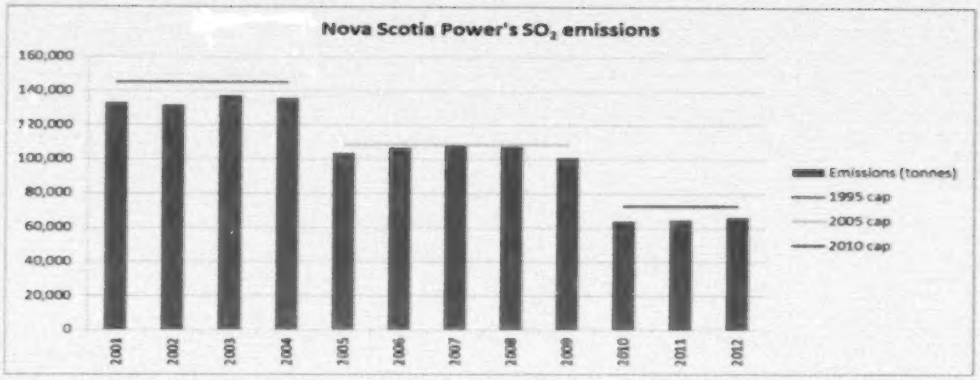
SO_2 contributes to the formation of smog and acid precipitation, which have negative effects on human health and the environment. In Nova Scotia, most of the SO_2 emissions are produced by thermal electric power generation. The purpose of this target is to limit NSP's SO_2 emissions to reduce smog and acid precipitation.

Strategic Actions to Achieve the Target:

- Regulations were created by Nova Scotia Environment to set emissions caps for NSP and require them to report annually to the Department to demonstrate progress in meeting these caps.

2012-2013 Results:

In 2012, NSP emitted 66,260 tonnes of SO_2 into the atmosphere, which was less than the emissions cap of 72,500 tonnes.



Ultimate Goal:

Our goal for this measure is to have NSP continue to meet the caps in the Air Quality Regulations. In addition to the 2010 target, SO_2 emissions caps have been set in the regulations for NSP for 2015 and 2020. The cap for 2015 is 60,900 tonnes and the cap for 2020 is 36,250 tonnes.

Mandate: *Environment Act* – Clean Air

Outcome Description:

Nova Scotia Power's (NSP) annual air emissions of mercury are below their regulated emissions cap.

Measure:

Annual total mercury air emissions (kg) from NSP's coal-fired electric power generating stations.

Target:

The target is for NSP to limit mercury emissions to be within the emissions caps for their coal-fired electrical power stations. These caps are:

Year	Cap (kg)
2005	168
2010	110
2011-2012	100
2013	85
2014	65
2020	35

Mercury is a neurotoxin that persists in the environment and accumulates in the food chain. It can have negative effects on human health. Coal-fired electric power generation plants account for the vast majority of mercury emissions in Nova Scotia. The purpose of the target is to reduce the negative impacts of mercury on the environment and human health.

Strategic Actions to Achieve the Target:

- Regulations were created by Nova Scotia Environment to set emissions caps for NSP and require them to report annually to the Department to demonstrate progress in meeting these caps.

2012-2013 Results:

In 2012, NSP's mercury emissions were 93.9 kg, which is below the emissions cap of 100 kg for 2012.

Ultimate Goal:

Our goal for this measure is for NSP to continue to meet the mercury emissions caps set out in the Air Quality Regulations. The first cap on NSP's mercury emissions was set in 2005 at 168 kg. There are declining emissions caps until 2014, when the cap will be 65 kg and a final cap of 35 kg has been set for 2020. In 2020, NSP's emissions cap will be 80% less than their original cap set in 2005.

Mandate: *Environment Act* – Clean Air

Outcome Description:

Nova Scotia Power's (NSP) annual air emissions of nitrogen oxides (NO_x) are below their regulated emissions cap.

Measure:

Annual total NO_x (tonnes) emitted into the atmosphere by NSP.

Target:

The target is for NSP to meet their annual NO_x emissions cap, set in 2009, of 21,365 tonnes, or 20% less than 2000, the base year, and to achieve a level of NO_x emissions no greater than 19,288 tonnes by 2015, and no greater than 14,955 tonnes by 2020 (44% less than base year emissions of 26,706 tonnes). These caps are outlined in the table below.

Year	Cap (tonnes)
2009	21,365
2015	≤ 19,288
2020	≤ 14,955

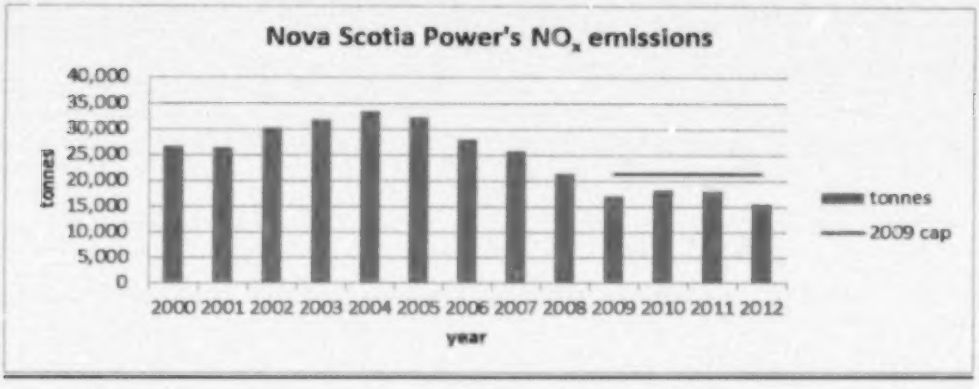
NO_x contributes to the formation of smog and acid precipitation, which have negative effects on human health and the environment. In Nova Scotia, NO_x emissions are produced by a variety of sources, including thermal electric power generation. The purpose of this target is to limit NSP's NO_x emissions to reduce smog and acid precipitation.

Strategic Actions to Achieve the Target:

- Regulations were created by Nova Scotia Environment to set emissions caps for NSP and require them to report annually to the Department to demonstrate progress in meeting these caps.

2012-2013 Results:

In 2012, NSP emitted 15,640 tonnes of NO_x into the atmosphere, which was 41% less than their 2000 emissions levels.



Ultimate Goal:

Our goal for this measure is to have NSP continue to meet the targets in the Air Quality Regulations. The 2009 cap of 21,365 tonnes of NO_x is 20% less than NSP's base year (2000) emissions of 26,706 tonnes. The 2015 cap is an additional 10% reduction (to 19,228 tonnes) and the cap for 2020 is an additional 20% reduction (to 14,995 tonnes).

Mandate: *Environment Act* – Clean Drinking Water

Outcome Description:

Nova Scotia Environment is committed to public health protection. A desired outcome in meeting this commitment is clean and safe drinking water.

Measure:

Percentage of population served by municipal water supplies that meet the health-based criteria for microbiological quality.

Target:

The annual target is to maximize the percentage of the population meeting the health-based criteria for microbiological quality, as stated in the *Guidelines for Canadian Drinking Water Quality*, at all times during the calendar year.

Approximately 60% of Nova Scotians obtain their drinking water from municipal drinking water supplies. Health Canada, together with provincial health and environment ministries, has established the *Guidelines for Canadian Drinking Water Quality*. This document specifies the health-based criteria for a number of parameters, including maximum acceptable concentrations for total coliforms and *E. coli* bacteria. Nova Scotia Environment tracks the proportion of people serviced by municipal drinking water supplies who have access to drinking water that meets the health-based criteria for microbiological quality. The target demonstrates Nova Scotia Environment's commitment to clean and safe drinking water for Nova Scotians.

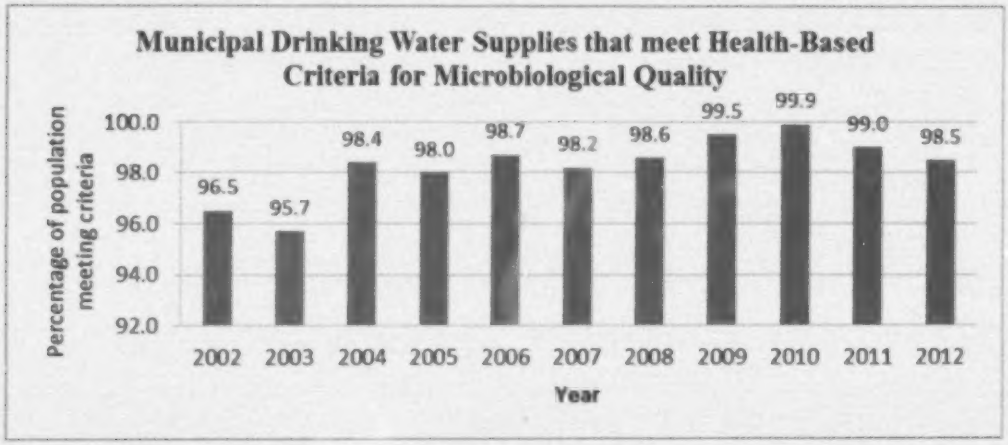
Strategic Actions to Achieve the Target:

- Ongoing administration of the *Water and Wastewater Facilities* and *Public Drinking Water Supplies Regulations* and enforcement where necessary.
- Supported the development of municipal source water protection plans.
- Continued to implement Water for Life: Nova Scotia's Water Resource Management Strategy.
- Renewal of the Drinking Water Strategy, including targeted consultation with municipalities to identify their challenges.

2012-2013 Results:

Nova Scotia Environment's boil water advisory database provides a tracking system for municipal drinking water quality. In 2012, 98.5% of the population served by municipal

drinking water supplies received water meeting the health-based criteria for microbiological quality at all times during the calendar year. This decrease from 2011 is because one boil water advisory affected a relatively large population (7,800 people). The following graph shows the results since 2002.



Ultimate Goal:

Our ongoing goal is to maximize the percentage of the population served by municipal drinking water supplies that meet the health-based criteria for microbiological quality.

Mandate: *Environment Act* – Proactive Environmental Management

Outcome Description:

Proactive environmental management through educating rural homeowners on their well water, on-site sewage disposal system and heating oil tanks.

Measure:

Number of environmental home assessments per year and number of septic repairs completed with funding from the Environmental Home Assessment Program (EHAP).

Target:

The target for 2012-2013 was to complete 600 environmental home assessments and repair 70 septic systems.

The purpose of the program is to address the number of septic system malfunctions (estimated by the Centre For Water Resources as 30%) and the number of homeowners with positive coliform bacteria test results of their drinking water (estimated at 40% of private wells). EHAP educates rural homeowners on proper operation and maintenance needs in these systems.

The septic replacement grant component of EHAP is to provide partial financial assistance for lower income families and seniors that struggle with the cost of replacing their malfunctioning septic system.

Strategic Actions to Achieve the Target:

- Service contracts were tendered to four non-profit environmental education organizations (Clean Annapolis River Project, Bluenose Coastal Action Foundation, Clean Nova Scotia and Atlantic Coastal Action Program Cape Breton) to provide educational visits (home assessments) and promote key program messages to the wider public.
- Financial assistance was made available to lower income families to enable the replacement of malfunctioning septic systems. The septic repair grants were administered directly through Nova Scotia Environment.
- Several partnerships were established to ensure the highest possible success of the program, including: Nova Scotia Department of Community Services, Nova Scotia Department of Seniors, Wastewater Nova Scotia Society, and Nova Scotia Ground Water Association.

2012-2013 Results:

The number of environmental home assessments completed was based on available funding which resulted in 400 home assessments in 2012-13 (100 visits per the four regions).

With the high uptake on the septic repair grant component of the program, additional funds were re-allocated to provide for a total of 92 septic repair grants for lower income rural families in 2012-2013.

To address domestic oil spills, a pilot project was conducted in winter 2013 to test a grant system for low income families to encourage replacement of their aging oil tanks. Oil tank replacement grants for $1000 were provided to 25 homeowners.

Fiscal Year	Home Assessments	Grants
2006-2007	400	70
2007-2008	1000	200
2008-2009	1000	286
2009-2010	1000	237
2010-2011	625	127
2011-2012	662	111
2012-2013	*400	**117

* Environmental home assessments are based on available program funding each year.

** Includes 92 septic repair grants and 25 oil tank replacement grants

Ultimate Goal:

Our ongoing goal is to increase rural homeowners' knowledge of operating/maintaining their septic system, water well and heating oil tank. The ability for homeowners to protect their drinking water and treat sewage provides better health and environmental protection for all rural residents.

Mandate: *Wilderness Areas Protection Act* and *Special Places Protection Act – Protected Natural Areas*

Outcome Description:

To increase the hectares of protected provincial land to at least 12%.

Measure:

Total hectares of land protected through Nova Scotia Environment (*Wilderness Areas Protection Act, Special Places Protection Act* – ecological sites).

Target:

The annual target is to increase the hectares of land under various protection options.

Note: In June 2007, the *Environmental Goals and Sustainable Prosperity Act* (*EGSPA*) had set a target to protect 12% of Nova Scotia's total land mass by 2015. During the 2012 *EGSPA* review, the goal changed from "protect 12%" to "protect at least 12%."

This measure tells us how much land is legally protected as wilderness areas under the *Wilderness Areas Protection Act*, and as ecological sites (nature reserves) under the *Special Places Protection Act*.

Measuring the hectares of provincial land protected through Departmental programs helps track the progress made in meeting provincial and national commitments to establish systems of protected areas. This measure also provides an indication of the state of biodiversity conservation in the province, as protected areas provide habitat for a wide range of species.

As well, protecting at least 12% of provincial lands contributes to economic growth by providing a range of natural services, supporting outdoor recreation and tourism industries, and helping to brand Nova Scotia as a clean, green place in which to live, work, and do business.

Strategic Actions to Achieve the Target:

In 2012-2013, we continued to make progress on the goal of protecting at least 12% of the total land mass of the province.

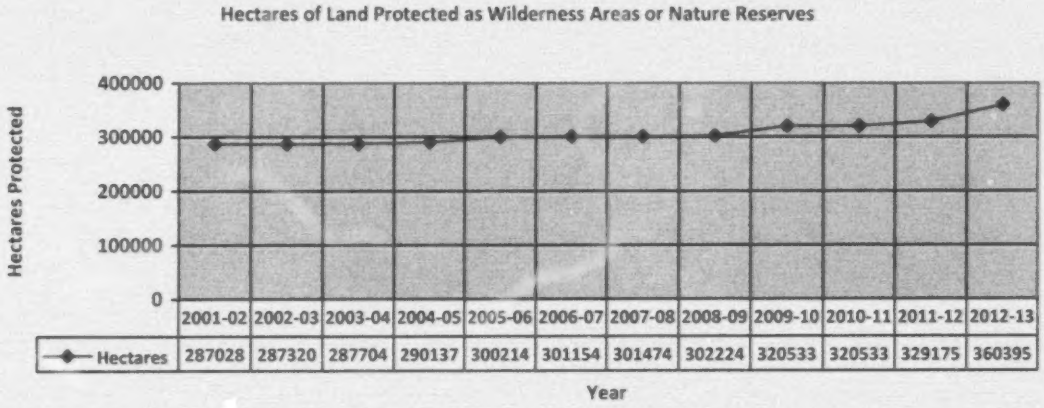
- Completed the designation of Kelley River and Raven Head Wilderness Areas, protecting more than 26,000 hectares of land.

- Added 23 parcels of land covering 5,000 hectares (acquired between 2007 and 2011) to nine existing wilderness areas.
- Administered $6.5 million towards the acquisition of conservation lands, and supported the acquisition of former Bowater Mersey Paper Co. lands – a portion of which will be used for conservation.
- Continued partnerships with Nature Conservancy of Canada and Nova Scotia Nature Trust in support of private land conservation.
- On February 28, 2013, *Our Parks and Protected Areas: A Proposed Plan for Nova Scotia* was released. This plan included more than 240,000 hectares of land for potential protection, and described the type of protection proposed, land use considerations, and high priority goals and actions for parks and protected areas.

2012-2013 Results:

As of March 31, 2013, Nova Scotia Environment has protected a total of 360,395 hectares throughout the province. This represents an increase of 73,367 hectares compared to the base year measure (2001-2002), and an increase of 31,220 hectares over 2011-12.

The increase in 2012-2013 came from the protection of Kelley River and Raven Head Wilderness Areas, as well as the protection of 23 additions to existing wilderness areas.



Ultimate Goal:

The *Environmental Goals and Sustainable Prosperity Act* sets a goal to legally protect at least 12% of the total land mass of the province by 2015. In addition to wilderness areas and nature reserves, lands protected under the *National Parks Act*, *Conservation Easements Act*, and *Canada Wildlife Act*, as well as conservation-oriented lands protected under the *Provincial Parks Act*, and conservation lands held by non-government charitable land trusts also contribute to the *EGSPA* 2015 goal.

While this measure only applies to Nova Scotia Environment, all these other lands contribute to reaching the goal. Including other qualifying lands, approximately 513,240 hectares or 9.28% of Nova Scotia was legally protected as of 2012-2013.

Mandate: *Environment Act* and *Environmental Goals and Sustainable Prosperity Act* – Responsible Waste Management

Outcome Description:

Maximize diversion of compostable and recyclable materials for disposal at landfills.

Measure:

Annual solid waste disposal rate per capita* (Kg/person).

* Provincial per capita average determined from achievement reported by the seven Nova Scotia municipal solid waste regions.

Target:

The target is to achieve a disposal rate of no greater than 300 kilograms per person by 2015.

A goal of 300 kg/person was adopted as a challenging but realistic goal that will allow Nova Scotia to maintain and strengthen its claim to having the lowest disposal rate in Canada. This demonstrates our desire to divert resources from disposal sites in order to protect the environment and create new jobs and businesses. We are currently 50% below the national average.

Strategic Actions to Achieve the Target:

- The Department's goal has been to focus on the implementation of *"Our Path Forward"* (renewed approach to solid waste management) as our key metric for measuring progress towards the goal of 300 kg/person. The existing Solid Waste Resource Management Regulations are being reviewed and targeted stakeholders are being consulted on proposed regulatory changes. These changes include establishing a framework for Extended Producer Responsibility (EPR) that will transfer the waste management costs for targeted materials away from the municipalities to the generators of the waste (manufacturers/brand owners and users). This will provide a strong new incentive for municipalities to divert materials. The proposed changes also include additional disposal bans.
- We have continued to work with our partners to increase diversion by the adoption of best management programs such as promotion of clear bags for waste disposal. The Department conducted audits of construction and demolition (C&D) disposal facilities to assess compliance with operating approvals. We have also worked with the Resource Recovery Fund Board (RRFB) to complete waste audits on the municipal solid waste stream to inform future policy and program development.

2012-2013 Results:

Overall disposal rate for the province continues to trend downwards, due in part to enforcement and educational activities undertaken by the RRFB and our municipal partners. The latest data indicates that Region 7 (Argyle, Clare, Digby and Yarmouth) has surpassed the provincial disposal target, with a regional disposal rate of 292 kg/person. Region 5 (Annapolis Valley) and Region 6 (South shore) follow closely at 316 and 341 kg/person, respectively. Expansion of green cart programs in Cumberland and Colchester counties, as well as increased adoption of clear bag programs (39 of 54 municipalities) and continued research to identify new and more efficient diversion methods will continue to reduce disposal rates. These ongoing efforts combined with the potential upcoming regulatory changes will position Nova Scotia well to achieve the Department's overall goal of protecting the environment.

Year	Per Capita Disposal
2005-2006	488 kg
2006-2007	477 kg
2007-2008	429 kg
2008-2009	417 kg
2009-2010	401 kg
2010-2011	401 kg
2011-2012	394 kg

The 2012-2013 results are expected in the Fall of 2013.

Ultimate Goal:

To meet the Province's legislated target, an additional 25% reduction in disposal rate within three years is necessary. Nova Scotia Environment intends to achieve its solid waste disposal rate target through implementing actions in "Our Path Forward," which is the renewed approach to solid waste management.

Mandate: *Environmental Goals and Sustainable Prosperity Act* - Greenhouse Gas Emissions

Outcome Description:

Economy-wide Greenhouse Gas emissions (GHG) must be at least 10% below 1990 levels by 2020 as legislated in the *Environmental Goals and Sustainable Prosperity Act.*

Measure:

Annual provincial GHG emissions, as measured by the National Inventory Report (NIR), and industry submissions, which were independently verified, compared with 1990 emissions levels.

Target:

The target is for 17.1 Mega-tonnes (M tonnes), or less, GHG emissions by 2020.

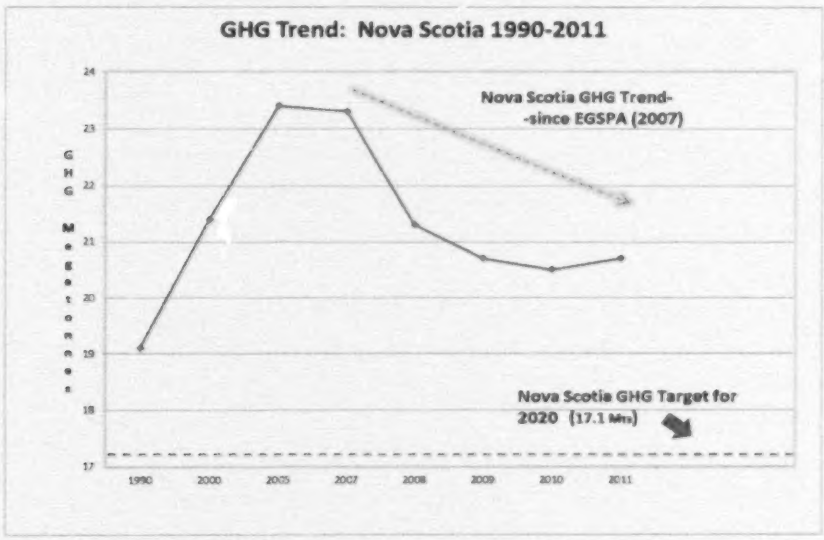
The target of 17.1 M tonnes is 10% below 1990 GHG emissions levels in Nova Scotia. This target was adopted from the regional target in the New England Governors/Eastern Canadian Premiers 2001 "Climate Change Action Plan." Nova Scotia, as well as the other eastern Canadian provinces and New England states, made a commitment to meet this regional target.

Strategic Actions to Achieve the Target:

- Regulated GHG targets for the electricity sector, Nova Scotia's largest source of GHG emissions. This regulation will move the province at least half way to its 2020 GHG target.
- Continued to implement and complete the 68 actions in Nova Scotia's 2009 "Climate Change Action Plan" (95% of actions have been completed or implemented). For example, action 19 committed the province to create a Sustainable Transportation Strategy, which was completed in cooperation with the Department of Energy. The transportation sector is the province's second largest source of GHG emissions.
- Worked with the federal government on the development of their regulatory approach for major GHG sources including coal-fired electricity, large industry, light and heavy duty vehicles.
- An Equivalency Agreement with federal regulation of coal-fired electricity was drafted in 2012-2013, which will let us reach federal targets but at lower cost to Nova Scotia rate payers.

2012-2013 Results:

The current GHG output is 20.7 M tonnes, based on the National Inventory Report (NIR), and industry reports (verified). The 2012 data from the National Inventory is expected in April 2014.



The GHG trend shows significant reductions since 2007, with a slight increase in the year 2011 due to industry recovery from the recession of 2008.

Ultimate Goal:

The long-term target is 80% below current levels by 2050, or about five M tonnes of GHG output. Nova Scotia wants to transition its economy from high carbon intensity (fourth highest in Canada per capita) to being less energy and carbon intense in resources, industry, transport, and households. The 2020 target and related actions are essential steps in that transformation. Nova Scotia is on the right track, as demonstrated by the above graph's downward trend from 2005 to 2011 in GHG emissions. In 2020, Nova Scotia will be a national leader in energy efficiency, clean energy, and technology, driven by our early actions. Our actions have helped prove that Nova Scotia can have economic expansion alongside GHG reduction. The economy can expand sustainably, and thus we can be a contributor to the crucial global effort to reduce GHGs by the level science tells us is essential.

Mandate: *Environmental Goals and Sustainable Prosperity Act* – Clean Air

Outcome Description:

Meet the Canada-Wide Standard (CWS) for particulate matter.

Measure:

Ambient fine particulate matter ($PM_{2.5} \leq 2.5$ microns aerodynamic diameter). Volumetric mass (micrograms per cubic metre of air, $\mu g/m^3$) measured and reported as the three-year average of the annual 98th percentile of the daily 24-hour average concentrations.

Target:

Our target for this measure is 30 $\mu g/m^3$ or less of $PM_{2.5}$, within a 24-hour averaging period.

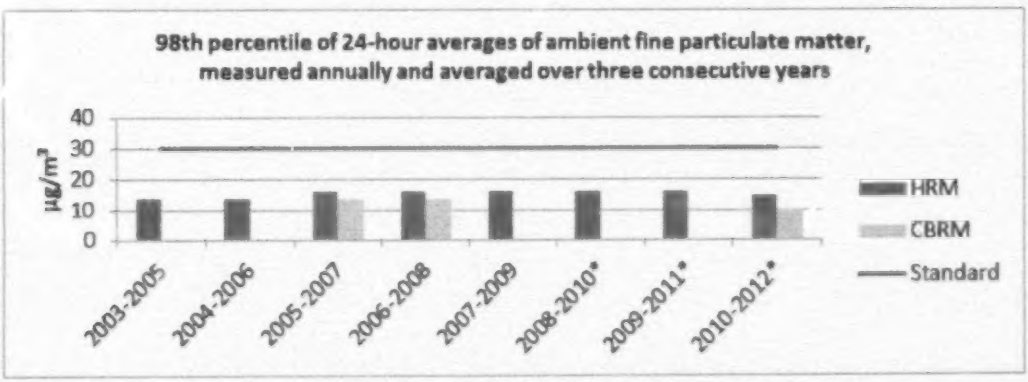
Fine particulate matter is a pollutant that contributes to degraded air quality, which has negative effects on human health and the environment. The target for this measure is to meet the CWS for particulate matter. The purpose of the target is to reduce smog.

Strategic Actions to Achieve the Target:

- Nova Scotia Environment maintains monitoring stations and carries out data analysis to determine CWS achievement in Census Metropolitan Areas - areas with a core urban population of 100,000 or more.

2012-2013 Results:

The latest measure for $PM_{2.5}$ (for the 2010 to 2012 period) was 15 $\mu g/m^3$ in the Halifax Regional Municipality (HRM) and 10 $\mu g/m^3$ in the Cape Breton Regional Municipality (CBRM), which are below the CWS target of 30 $\mu g/m^3$.



*Some data are still in the validation phase for these periods.

Ultimate Goal:

Our goal is to continue to meet the Canada-wide Standard for HRM and CBRM.

Mandate: *Environmental Goals and Sustainable Prosperity Act* – Clean Air

Outcome Description:

Meet the Canada-Wide Standard for Ozone.

Measure:

Ambient ground level ozone concentrations, in parts per billion (ppb); the three-year average of the annual fourth-highest daily maximum eight-hour average concentrations.

Target:

Our target for this measure is 65 ppb ground level ozone or less, with eight hour averaging.

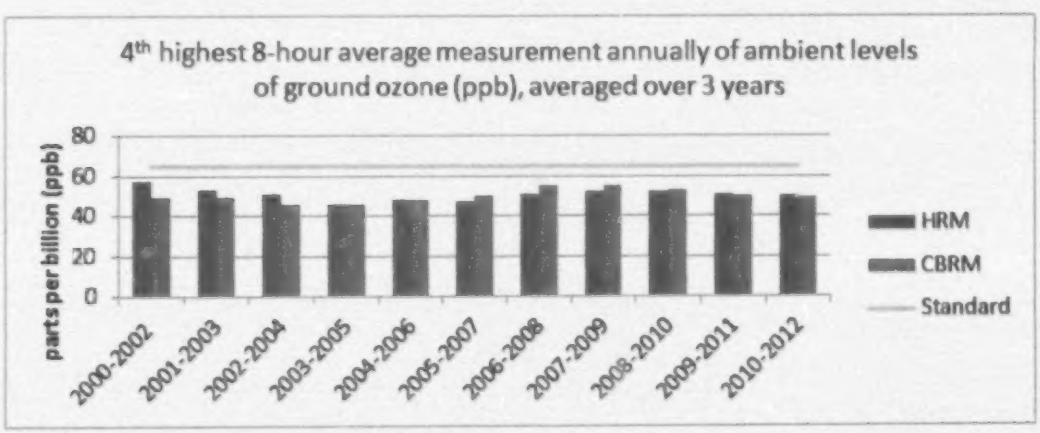
Ozone is a pollutant that contributes to the formation of smog, which has negative effects on human health and the environment. The purpose of the target is to reduce smog.

Strategic Actions to Achieve the Target:

- Nova Scotia Environment maintains monitoring stations and carries out data analysis to determine CWS achievement in Census Metropolitan Areas (CMA) - areas with a core urban population of 100,000 or more.

2012-2013 Results:

The latest CWS measure for ground level ozone (for the 2010 to 2012 period) was 50 ppb in the HRM and 49 ppb in the CBRM, which are below the CWS target of 65 ppb.



Ultimate Goal:

Our goal is to continue to meet the Canada-wide Standard for ozone.

Mandate: *Environmental Goals and Sustainable Prosperity Act* – Wastewater Treatment Facilities

Outcome Description:

Prevention of adverse effects of wastewater discharges on public health and the environment.

Measure:

Percentage of wastewater treatment facilities that provide at least primary treatment.

Target:

In 2012-2013, the target for this measure was to have 92% of wastewater treatment facilities with at least primary treatment.

In Nova Scotia, the discharge of untreated wastewater results in beaches closed to swimming, waters closed to shellfish harvesting, and the aesthetics associated with raw discharges affecting our ecotourism potential. Our streams, estuaries and coastal waters can be threatened by the substances found in inadequately treated wastewater and drinking water can become contaminated.

By ensuring that all facilities have at least primary treatment, we ensure a level of protection against the adverse effects of wastewater discharges.

Strategic Actions to Achieve the Target:

- Worked with municipalities to implement the Canada-wide Municipal Wastewater Effluent (MWWE) Strategy.
- Completed new provincial wastewater standard. Nova Scotia Environment is engaging municipal stakeholders in the review of the provincial wastewater standard.
- Worked with the federal government to discuss roles and responsibilities related to federal wastewater regulations.

2012-2013 Results:

Approximately 55% of Nova Scotians dispose of their wastewater into a central sewer collection system; the remaining 45% utilize individual on-site septic systems. There are currently 141 municipal central sewer collection systems in the province.

In 2012-2013, a previously unserviced community commissioned a new wastewater treatment plant. Currently, 130 facilities (92%) have at least a primary level of treatment.

Year	2008-2009	2009-2010	2010-2011	2011-2012
Percentage	90	91	91	92

Ultimate Goal:

The ultimate goal is to have 100% of wastewater treatment facilities provide at least primary treatment by 2020. There are 11 facilities remaining in Nova Scotia with raw wastewater discharge. Two of these facilities are currently in the process of designing or constructing new treatment facilities.

Nova Scotia Environment is contributing to this goal by developing an implementation plan for the MWWE Strategy. We will continue to consult with municipalities on the development of this plan.

Change in Measure

On February 17, 2009, Nova Scotia endorsed a Canada-wide Strategy for Municipal Wastewater Effluent (MWWE). This strategy calls for a minimum of secondary treatment. Although this standard is more stringent than primary treatment, the timelines are longer than the 2017 date previously stated in the *Environmental Goals and Sustainable Prosperity Act*.

Also, in June 2012 the federal government published new wastewater regulations that require treatment of high risk discharges by the year 2020.

The timeline was modified to achieve the goal by the year 2020, instead of 2017 to align this priority with new federal wastewater regulations.

Appendix A

Annual Report under Section 18 of the *Public Interest Disclosure of Wrongdoing Act*

The Public Interest Disclosure of Wrongdoing Act was proclaimed into law on December 20, 2011.

The Act provides for government employees to be able to come forward if they reasonably believe that a wrongdoing has been committed or is about to be committed and they are acting in good faith.

The Act also protects employees who do disclose from reprisals, by enabling them to lay a complaint of reprisal with the Labor Board.

A Wrongdoing for the purposes of the Act is:

a) a contravention of provincial or federal laws or regulations

b) a misuse or gross mismanagement of public funds or assets

c) an act or omission that creates an imminent risk of a substantial and specific danger to the life, health or safety of persons or the environment, or

d) directing or counselling someone to commit a wrongdoing

The following is a summary of disclosures received by Nova Scotia Environment:

Information Required under Section18 of the Act	Fiscal Year 2012-2013
The number of disclosures received	One
The number of findings of wrongdoing	One
Details of each wrongdoing	The Department of Environment has, since 2006, permitted a portion of Antigonish County to operate outside the regulations which provides for safe drinking water in Nova Scotia. It was found that the water supplies were not operating outside the regulations; however, the issue was related to a term and condition of an approval issued to Antigonish County. The two supplies in question were Lower South River and Gasperaux Lake. Both

	supplies were supposed to have Continuous Chlorine Monitoring equipment. It was found that Lower South River Supply had the equipment and the allegation was not warranted. It was found that Gasperaux Lake did not have the equipment and fits the definition of wrongdoing.
Recommendations and actions taken on each wrongdoing	In the case of Gasperaux Lake Water Supply, the facility was issued a Certificate of Variance to operate until October 31, 2013 and put forward a proposal to install the Continuous Chlorine Monitoring equipment. The County of Antigonish has requested funding assistance from Service Nova Scotia and put forth a funding request to Council for the 30 k purchase of the equipment. It is anticipated the equipment will be installed by September 30, 2013.